WorkKeys/MEAP/CTE – Michigan Academic Standards Crosswalk

This project was a collaborative effort between the Michigan Department of Career Development, Office of Career and Technical Preparation, and identified state level experts, professional organizations, and content area teachers in response to requests from administrators and educators. Each crosswalk was developed to the Standards level of the Michigan Curriculum Frameworks. For further development, local district CTE programs will need to do benchmark level linkage with their local curriculum.

As we move forward in the educational process to prepare students for their future, we must recognize our responsibility to provide high quality technical and academic education to best prepare these students for their future goals.

Overview:

- This is a tool to assist Local Educational Agencies to develop crosswalks at the benchmark level for specific programs.
- CTE curriculum Standards /unit goals were the basis of the crosswalk
- Local district programs need to do benchmark level linkage with their local curriculum.
- Curriculum Standards support the curriculum, with a broad-based focus.
- WorkKeys crosswalks used national occupational job profile information as the basis of determining performance level expectations.
- For new program application submission starting 2003-2004, crosswalk at the benchmark level will be required.

Benefits

- Provides linkages to National Occupational Standards for improvement in program delivery
- Will assist "highly qualified" instructional staff in documenting accountability and supporting new national initiatives
- Demonstrate CTE support of the Michigan Curriculum Frameworks and MEAP objectives
- To enable districts with CTE programs to strengthen communication with curriculum directors, superintendents and building administrators.
- Curriculum crosswalk will encourage communications between Career and Technical and academic educators
- Assist locals in establishing support for academic credit granted for Career and Technical Education programs

Plan Dissemination

- On MDCD/OCTP Web site
 - Posted by pathway
 - o Link to Agriscience Web site
- State update meetings
- Presentation to Teacher groups
- Presentations to Administrator groups
- Distribution to Teacher Educators
- Feature item in Newsletters, updates to field
- MDF
- Available to Education Institutions

CONTENT	OTE A NUMBER	DDC CD	OCCUPATE TO
CONTENT	STANDA	KDS CK	USSWALK

	Michigan Curriculum Frameworks					
D 4 C/ 1 1		(As Assessed by the Michigan Educational Assessment Program –MEAP)				
Program Area Standards Identification Here	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands		
Tuchtification fiere	Science Strands	Wiathematics Content Standards	English Language Arts Standards	Social Studies Strands		
Standard 1. Students will understand			1. All students will demonstrate the ability	1. Students use knowledge of the past to		
the human growth, development, and	Strand 2: Reflecting on Scientific		to read and comprehend general and	construct meaningful understanding of		
learning principles necessary to work	Knowledge		technical materials.	our diverse cultural heritage and to		
with young children.	2.1 All -4 d4		2 All -4-1-4	inform their civic judgments.		
	2.1 All students will analyze claims for their scientific merit		2. All students will demonstrate the ability to write clear and grammatically correct			
	and explain how scientists decide		sentences, paragraphs, and compositions.	6. Student will analyze public issues and		
	what constitutes scientific			construct and express thoughtful		
	knowledge; how science is related		3. All students will focus on meaning and	positions of these issues.		
	to other ways of knowing; how		communication as they listen, speak, view,	7 6 1 4 7 4 4 4 4 4 4 4		
	science and technology affect our society; and how people of		read and write in personal, social, occupational and Civic contexts.	7. Student will act constructively to further the public good.		
	diverse cultures have contributed		occupational and Civic contexts.	further the public good.		
	to and influenced developments		4. All students will use the English			
	in science.		language effectively.			
	St					
	Strand 3: <u>Using scientific</u> knowledge in Life Science.		6. All students will learn to communicate information accurately and effectively and			
	3.2 All students will use		demonstrate their expressive abilities by			
	classification systems to describe		creating oral, written, and visual texts and			
	groups of living things; compare		enlighten and engage and audience.			
	and contrast differences in the		7 49 4 3 4 39 3			
	life cycles of living things; investigate and explain how		7. All students will demonstrate, analyze, and reflect upon the skill and process used			
	living things obtain and use		to communicate through listening, speaking,			
	energy; and analyze how parts of		viewing, reading, and writing.			
	living things are adapted to carry					
	out specific functions.		10. All students will apply knowledge,			
	analyze how human and environments interact.		ideas, and issues drawn from text to their			
	environments interact.		lives and the lives of others.			
			11. All students will define and investigate			
			important issues and problems using a			
			ariety of resources, including technology to			
			explore and create texts			

Child Care Services CIP Code 20.0299 content standards crosswalk

			Curriculum Frameworks n Educational Assessment Program –MEAP)	
Program Area Standards Identification Here	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
Standard 2. Students will assist in creating safe environments that are healthy, respectful, supportive, and challenging for all children	Strand 1: Constructing New Scientific Knowledge 1.1 All students will ask questions that help them learn about the world; design and conduct investigations using appropriate methodology and technology, learn from books and other sources of information; communicate their findings using appropriate technology and reconstruct previously learned knowledge.	2.2 Students identify location of objects, identify location relative to other objects, and describe the effects of transformations (e.g. sliding, flipping, turning, enlarging, reducing) on an object. 3.1 Students will collect and explore data, organize data into a useful form, and develop skill in representing and reading data displayed in different forms. 5.1 Students understand and use various types of operations (e.g. addition, subtraction, multiplication, division) to solve problems.	1. All students will demonstrate the ability to read and comprehend general and technical materials. 2. All students will demonstrate the ability to write clear and grammatically correct sentences, paragraphs, and compositions. 3. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts. 4. All students will use the English language effectively.	1. Students use knowledge of the past to construct meaningful understanding of our diverse cultural heritage and to inform their civic judgments. 2. Students will use knowledge of spatial patterns on earth to understand processes that shape human environments and to make decisions about society. 4. Students will use knowledge of the production, distribution and consumption of goods and services to make personal and societal decisions about the use of scarce resources.
			6. All students will learn to communicate information accurately and effectively and demonstrate their expressive abilities by creating oral, written, and visual texts and enlighten and engage and audience. 7. All students will demonstrate, analyze, and reflect upon the skill and process used to communicate through listening, speaking, viewing, reading, and writing. 11. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts	6. Student will analyze public issues and construct and express thoughtful positions of these issues. 7. Student will act constructively to further the public good.

	12. All students will develop and apply	
	personal, shared, and academic criteria for	
	the employment, appreciation, and	
	evaluation of their own and other' oral,	
	written, and visual texts.	

		Michigan	n Curriculum Frameworks		
	(As Assessed by the Michigan Educational Assessment Program –MEAP)				
Program Area Standards					
Identification Here	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands	
Standard 3. Students will understand that nutritional need and eating practices of children are important for promoting physical, social, language and cognitive development of children.	Strand 1: Constructing New Scientific Knowledge 1.1 All students will ask questions that help them learn about the world; design and conduct investigations using appropriate methodology and technology, learn from books and other sources of information; communicate their findings using appropriate technology and reconstruct previously learned knowledge. Strand 2: Reflecting on Scientific Knowledge 2.1 All students will analyze claims for their scientific merit and explain how scientists decide what constitutes scientific knowledge; how science is related to other ways of knowing; how science and technology affect our society; and how people of diverse cultures have contributed to and influenced developments in science. Strand 3: Using scientific knowledge in Life Science. 3.2 All students will use classification systems to describe	Mathematics Content Standards	1. All students will demonstrate the ability to read and comprehend general and technical materials. 2. All students will demonstrate the ability to write clear and grammatically correct sentences, paragraphs, and compositions. 3. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts. 4. All students will use the English language effectively. 6. All students will learn to communicate information accurately and effectively and demonstrate their expressive abilities by creating oral, written, and visual texts and enlighten and engage and audience. 7. All students will demonstrate, analyze, and reflect upon the skill and process used to communicate through listening, speaking, viewing, reading, and writing. .10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others. 11. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts	1. Students use knowledge of the past to construct meaningful understanding of our diverse cultural heritage and to inform their civic judgments. 2. Students will use knowledge of spatial patterns on earth to understand processes that shape human environments and to make decisions about society. 4. Students will use knowledge of the production, distribution and consumption of goods and services to make personal and societal decisions about the use of scarce resources. 6. Student will analyze public issues and construct and express thoughtful positions of these issues. 7. Student will act constructively to further the public good.	
	groups of living things; compare		explore and erene tents		

and contrast differences in the life cycles of living things; investigate and explain how living things obtain and use energy; and analyze how parts of living things are adapted to carry out specific functions. 3.5 All students will explain how parts of an ecosystem are related and how they interact; explain how energy is distributed to living things in an ecosystem; investigate and explain how communities of living things change over a period of time; describe how materials cycle through an ecosystem and get reused in the environment and analyze how human and environments interact. Strand 5: Using Scientific knowledge in Earth Science. **5.3** All students will investigate and describe what makes up weather and how it changes form day to day, from season to season and over long periods of time; explain what causes different kinds of weather; and analyze the relationships between human activities and the atmosphere.

		Michigan Curriculum Frameworks (As Assessed by the Michigan Educational Assessment Program –MEAP)			
Program Area Standards Identification Here	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands	
Standard 4. Students will know about, understand and value the important and complex characteristics of children's families and communities.	Strand 1: Constructing New Scientific Knowledge 1.1 All students will ask questions that help them learn about the world; design and conduct investigations using appropriate methodology and technology, learn from books and other sources of information; communicate their findings using appropriate technology and reconstruct previously learned knowledge. Strand 2: Reflecting on Scientific Knowledge 2.1 All students will analyze claims for their scientific merit and explain how scientific knowledge; how science is related to other ways of knowing; how science and technology affect our society; and how people of diverse cultures have contributed to and influenced developments in science. Strand 3: Using scientific knowledge in Life Science. 3.2 All students will use classification systems to describe groups of living things; compare	3.2 Students will examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively.	 All students will demonstrate the ability to read and comprehend general and technical materials. All students will demonstrate the ability to write clear and grammatically correct sentences, paragraphs, and compositions. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts. All students will use the English language effectively. All students will learn to communicate information accurately and effectively and demonstrate their expressive abilities by creating oral, written, and visual texts and enlighten and engage and audience. All students will demonstrate, analyze, and reflect upon the skill and process used to communicate through listening, speaking, viewing, reading, and writing. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts 	1. Students use knowledge of the past to construct meaningful understanding of our diverse cultural heritage and to inform their civic judgments. 2. Students will use knowledge of spatial patterns on earth to understand processes that shape human environments and to make decisions about society. 3. Students will use knowledge of American government and politics to make informed decisions about government and their communities. 4. Students will use knowledge of the production, distribution and consumption of goods and services to make personal and societal decisions about the use of scarce resources. 6. Student will analyze public issues and construct and express thoughtful positions of these issues. 7. Student will act constructively to further the public good.	

and contrast difference life cycles of living thin investigate and explain living things obtain an energy; and analyze he living things are adapt out specific functions.	gs; how I use w parts of	
3.5 All students will exparts of an ecosystem and how they interact; how energy is distribu living things in an ecos investigate and explain communities of living change over a period of describe how material through an ecosystem reused in the environmanalyze how human an environments interact.	re related explain ed to ystem; how hings f time; cycle und get ent and d	

Child Care Services CIP Code 20.0299 content standards crosswalk

	Michigan Curriculum Frameworks (As Assessed by the Michigan Educational Assessment Program –MEAP)			
Program Area Standards Identification Here	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
Standard 5. Students will use their knowledge of program organization, licensing, standards, policies, and record keeping to assist in managing early care and education programs.		1.2 Students describe the relationships among variables, predict what will happen to one variable as another variable is changed, analyze natural variation and sources of variability to compare patterns of change. 3.2 Students will examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively. 4.2 Student recognize that numbers are used in different ways such as counting, measuring, ordering, and estimating, understand and produce multiple representations of a number, and translate among equivalent representations. 5.1 Students understand and use various types of operations (e.g. addition, subtraction, multiplication, division) to solve problems. 6.2 Students investigate practical situations such as scheduling, routing, sequencing, networking, organizing and classifying, and analyze ideas like recurrence relations, induction, iteration, and algorithm design.	 All students will demonstrate the ability to read and comprehend general and technical materials. All students will demonstrate the ability to write clear and grammatically correct sentences, paragraphs, and compositions. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts. All students will use the English language effectively. All students will learn to communicate information accurately and effectively and demonstrate their expressive abilities by creating oral, written, and visual texts and enlighten and engage and audience. All students will demonstrate, analyze, and reflect upon the skill and process used to communicate through listening, speaking, viewing, reading, and writing. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts 	1. Students use knowledge of the past to construct meaningful understanding of our diverse cultural heritage and to inform their civic judgments. 2. Students will use knowledge of spatial patterns on earth to understand processes that shape human environments and to make decisions about society. 6. Student will analyze public issues and construct and express thoughtful positions of these issues. 7. Student will act constructively to further the public good.

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	12. All students will develop and apply	
	personal, shared, and academic criteria for	
	the employment, appreciation, and	
	evaluation of their own and other' oral,	
	written, and visual texts.	

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and 1: Constructing New entific Knowledge All students will ask questions it help them learn about the rid; design and conduct estigations using appropriate thodology and technology, rn from books and other cress of information; municate their findings using propriate technology and construct previously learned owledge. and 3: Using scientific owledge in Life Science. All students will use sestification systems to describe outpool fliving things; compared to contrast differences in the explose of living things; estigate and explain how entity and analyze how parts of ing things are adapted to carry a specific functions. All students will explain how rets of an ecosystem are related thow they interact; explain we energy is distributed to ong things in an ecosystem; estigate and explain how	1.2 Students describe the relationships among variables, predict what will happen to one variable as another variable is changed, analyze natural variation and sources of variability to compare patterns of change. 2.1 Students develop spatial sense, use shape as an analytical and descriptive tool, identify characters and define shapes, identify properties and describe relationships among shapes. 2.2 Students identify location of objects, identify location relative to other objects, and describe the effects of transformations (e.g. sliding, flipping, turning, enlarging, reducing) on an object. 3.1 Students will collect and explore data, organize data into a useful form, and develop skill in representing and reading data displayed in different forms. 3.2 Students will examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively.	1. All students will demonstrate the ability to read and comprehend general and technical materials. 2. All students will demonstrate the ability to write clear and grammatically correct sentences, paragraphs, and compositions. 3. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts. 4. All students will use the English language effectively. 6. All students will learn to communicate information accurately and effectively and demonstrate their expressive abilities by creating oral, written, and visual texts and enlighten and engage and audience. 7. All students will demonstrate, analyze, and reflect upon the skill and process used to communicate through listening, speaking, viewing, reading, and writing. 10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others. 11. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts	1. Students use knowledge of the past to construct meaningful understanding of our diverse cultural heritage and to inform their civic judgments. 2. Students will use knowledge of spatial patterns on earth to understand processes that shape human environments and to make decisions about society. 4. Students will use knowledge of the production, distribution and consumption of goods and services to make personal and societal decisions about the use of scarce resources. 5. Students will use methods of social science to answer questions about society. 6. Student will analyze public issues and construct and express thoughtful positions of these issues. 7. Student will act constructively to further the public good.	
At the establishment of the es	and 1: Constructing New titific Knowledge All students will ask questions help them learn about the d; design and conduct stigations using appropriate todology and technology, a from books and other ces of information; municate their findings using opriate technology and astruct previously learned yledge. And 3: Using scientific chedge in Life Science. All students will use ification systems to describe ps of living things; compare contrast differences in the ycles of living things; stigate and explain how gu;; and analyze how parts of g things are adapted to carry pecific functions. All students will explain how so of an ecosystem are related how they interact; explain energy is distributed to g things in an ecosystem; stigate and explain how	nd 1: Constructing New stiffic Knowledge All students will ask questions help them learn about the diginal conduct stigations using appropriate todology and technology, a from books and other ces of information; municate their findings using opriate technology and anstruct previously learned wiedge. And 3: Using scientific eledge in Life Science. All students will use iffication systems to describe ps of living things; compare contrast differences in the ycles of living things; titgate and explain how go things are adapted to carry pecific functions. All students will explain how so of an ecosystem are related how they interact; explain energy is distributed to g things in an ecosystem; atigate and explain how go things in an ecosystem; atigate and explain how go things in an ecosystem; atigate and explain how go things in an ecosystem; atigate and explain how go things in an ecosystem; atigate and explain how go things in an ecosystem; atigate and explain how go things in an ecosystem; atigate and explain how go things in an ecosystem; atigate and explain how go things in an ecosystem; atigate and explain how go things in an ecosystem; atigate and explain how go things in an ecosystem; atigate and explain how go things in an ecosystem; atigate and explain how go things in an ecosystem; atigate and explain how go things in an ecosystem; atigate and explain how go things in an ecosystem; atigate and explain how go things in an ecosystem; atigate and explain how go things in an ecosystem; atigate and explain how go things in an ecosystem; atigate and explain how go the provision of the electrons and sources of variables, predict what will happen to one variable as another variables, predict what will happen to one variable as another variables, predict what will happen to one variable as another variables, predict what will happen to one variable as another variables, predict what will happen to one variables, another variables, predict what will happen to one variables, another variables, predict what will h	Language Arts Standards	

change over a period of time; describe how materials cycle through an ecosystem and get reused in the environment and analyze how human and environments interact. Strand 4: Using Scientific knowledge in Physical Science: 4.1 All students will measure and describe the things around us; explain what the world around us is made of; identify and describe forms of energy; and explain how electricity and magnetism interact with matter 4.3 All students will describe how things around us move and explain why things move as they do; demonstrate and explain how we control the motions of objects; and relate motion to energy and energy conversions. 4.4 All students will describe sounds and sound waves; explain shadows, color, and other light phenomena; measure and describe vibrations and waves; and explain how waves and vibrations transfer energy. Strand 5: Using Scientific knowledge in Earth Science.	are used in different ways such as counting, measuring, ordering, and estimating, understand and produce multiple representations of a number, and translate among equivalent representations. 4.3 Students investigate relationships such as equality, inequality, inverses, factors and multiples, and represent and compare very large and very small numbers. 5.1 Students understand and use various types of operations (e.g. addition, subtraction, multiplication, division) to solve problems. 6.2 Students investigate practical situations such as scheduling, routing, sequencing, networking, organizing and classifying, and analyze ideas like recurrence relations, induction, iteration, and algorithm design.	12. All students will develop and apply personal, shared, and academic criteria for the employment, appreciation, and evaluation of their own and other' oral, written, and visual texts.	
5.2 All students will demonstrate where water is found on earth; describe the characteristics of water and how water moves; and analyze the interaction of human activities with the hydrosphere.			

5.3 All students will investigate

with describe what makes up veather and how it changes form lay to day, from season to season mid over long periods of time; xxplain what causes different kinds of weather; and analyze the relationships between human etivities and the atmosphere. All students will compare the contrast our planet and sun to the planets and star systems; lescribe and explain how objects in the solar system move; explain cientific theories as to the origin of the solar system; and explain how we learn about the universe.

Child Care Services CIP Code 20.0299 content standards crosswalk

	Michigan Curriculum Frameworks (As Assessed by the Michigan Educational Assessment Program – MEAP)				
Program Area Standards Identification Here	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands	
Standard 7. Students use observations, documentation, and other effective assessment strategies in a responsible way to support children's development and learning.	Strand 1: Constructing New Scientific Knowledge 1.1 All students will ask questions that help them learn about the world; design and conduct investigations using appropriate methodology and technology, learn from books and other sources of information; communicate their findings using appropriate technology and reconstruct previously learned knowledge.	1.1 Students recognize similarities and generalize patterns, use patterns to create models and make predictions, describe the nature of patterns and relationships and construct representations of mathematical relationships. 3.1 Students will collect and explore data, organize data into a useful form, and develop skill in representing and reading data displayed in different forms. 3.2 Students will examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively. 6.1 Students develop an understanding of the notion of certainty and of probability as a measure of the degree of likelihood that can be assigned to a given event based on the knowledge available, and make critical judgments about claims that are made in probabilistic situations.	1. All students will demonstrate the ability to read and comprehend general and technical materials. 2. All students will demonstrate the ability to write clear and grammatically correct sentences, paragraphs, and compositions. 3. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts. 4. All students will use the English language effectively. 6. All students will learn to communicate information accurately and effectively and demonstrate their expressive abilities by creating oral, written, and visual texts and enlighten and engage and audience. 7. All students will demonstrate, analyze, and reflect upon the skill and process used to communicate through listening, speaking, viewing, reading, and writing. 10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others. 11. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts	7. Student will act constructively to further the public good.	

	12. All students will develop and apply	
	personal, shared, and academic criteria for	
	the employment, appreciation, and	
	evaluation of their own and other' oral,	
	written, and visual texts.	

	Michigan Curriculum Frameworks (As Assessed by the Michigan Educational Assessment Program –MEAP)				
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Standard 8. Students will know and use ethical guidelines and other professional standards related to early childhood education and care.	Strand 1: Constructing New Scientific Knowledge 1.1 All students will ask questions that help them learn about the world; design and conduct investigations using appropriate methodology and technology, learn from books and other sources of information; communicate their findings using appropriate technology and reconstruct previously learned knowledge.	1.2 Students describe the relationships among variables, predict what will happen to one variable as another variable is changed, analyze natural variation and sources of variability to compare patterns of change.	1. All students will demonstrate the ability to read and comprehend general and technical materials. 2. All students will demonstrate the ability to write clear and grammatically correct sentences, paragraphs, and compositions. 3. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts. 4. All students will use the English language effectively. 6. All students will learn to communicate information accurately and effectively and demonstrate their expressive abilities by creating oral, written, and visual texts and enlighten and engage and audience. 7. All students will demonstrate, analyze, and reflect upon the skill and process used to communicate through listening, speaking, viewing, reading, and writing. 9. All students will demonstrate understanding of the complexity of enduring issues recurring problems by making connections and general themes within and across texts. 10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others.	1. Students use knowledge of the past to construct meaningful understanding of our diverse cultural heritage and to inform their civic judgments. 2. Students will use knowledge of spatial patterns on earth to understand processes that shape human environments and to make decisions about society. 5. Students will use methods of social science to answer questions about society. 6. Student will analyze public issues and construct and express thoughtful positions of these issues. 7. Student will act constructively to further the public good.	

	11. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts	
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	Michigan Curriculum Frameworks (As Assessed by the Michigan Educational Assessment Program –MEAP)				
Program Area Standards Identification Here	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands	
Standard 9. Students will be continuous, collaborative learners who demonstrate knowledgeable, reflective, and critical perspectives on their work and make informed decisions that integrate knowledge from a variety of sources.	Strand 1: Constructing New Scientific Knowledge 1.1 All students will ask questions that help them learn about the world; design and conduct investigations using appropriate methodology and technology, learn from books and other sources of information; communicate their findings using appropriate technology and reconstruct previously learned knowledge.	3.1 Students will collect and explore data, organize data into a useful form, and develop skill in representing and reading data displayed in different forms. 3.2 Students will examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively. 3.3 Students draw defensible inferences about unknown outcomes, make predictions, and identify the degree of confidence they have in their predictions. 5.1 Students understand and use various types of operations (e.g. addition, subtraction, multiplication, division) to solve problems. 6.1 Students develop an understanding of the notion of certainty and of probability as a measure of the degree of likelihood that can be assigned to a given event based on the knowledge available, and make critical judgments about claims that are made in probabilistic situations.	1. All students will demonstrate the ability to read and comprehend general and technical materials. 2. All students will demonstrate the ability to write clear and grammatically correct sentences, paragraphs, and compositions. 3. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts. 4. All students will use the English language effectively. 6. All students will learn to communicate information accurately and effectively and demonstrate their expressive abilities by creating oral, written, and visual texts and enlighten and engage and audience. 7. All students will demonstrate, analyze, and reflect upon the skill and process used to communicate through listening, speaking, viewing, reading, and writing. 8. All students will explore and use the characteristics of different types of texts, aesthetic elements, and mechanics—including text structure, figurative and descriptive language, spelling, punctuation, and grammar—to construct and convey meaning. 9. All students will demonstrate	1. Students use knowledge of the past to construct meaningful understanding of our diverse cultural heritage and to inform their civic judgments. 3. Students will use knowledge of American government and politics to make informed decisions about government and their communities. 4. Students will use knowledge of the production, distribution and consumption of goods and services to make personal and societal decisions about the use of scarce resources. 5. Students will use methods of social science to answer questions about society. 6. Student will analyze public issues and construct and express thoughtful positions of these issues. 7. Student will act constructively to further the public good.	

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10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others.
11. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts
12. All students will develop and apply personal, shared, and academic criteria for the employment, appreciation, and evaluation of their own and other' oral, written, and visual texts.

	Michigan Curriculum Frameworks (As Assessed by the Michigan Educational Assessment Program –MEAP)				
Program Area Standards Identification Here	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands	
Standard 10. Students will guide and direct behavior of young children using positive methods of discipline and supportive interactions.	Strand 1: Constructing New Scientific Knowledge 1.1 All students will ask questions that help them learn about the world; design and conduct investigations using appropriate methodology and technology, learn from books and other sources of information; communicate their findings using appropriate technology and reconstruct previously learned knowledge.	1.2 Students describe the relationships among variables, predict what will happen to one variable as another variable is changed, analyze natural variation and sources of variability to compare patterns of change.	 All students will demonstrate the ability to read and comprehend general and technical materials. All students will demonstrate the ability to write clear and grammatically correct sentences, paragraphs, and compositions. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts. All students will use the English language effectively. All students will learn to communicate information accurately and effectively and demonstrate their expressive abilities by creating oral, written, and visual texts and enlighten and engage and audience. All students will demonstrate, analyze, and reflect upon the skill and process used to communicate through listening, speaking, viewing, reading, and writing. All students will explore and use the characteristics of different types of texts, aesthetic elements, and mechanics—including text structure, figurative and descriptive language, spelling, punctuation, and grammar—to construct and convey meaning. 	1. Students use knowledge of the past to construct meaningful understanding of our diverse cultural heritage and to inform their civic judgments. 6. Student will analyze public issues and construct and express thoughtful positions of these issues. 7. Student will act constructively to further the public good.	

9. All students will demonstrate understanding of the complexity of enduring issues recurring problems by making connections and general themes within and across texts.
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11. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts
12. All students will develop and apply personal, shared, and academic criteria for the employment, appreciation, and evaluation of their own and other' oral, written, and visual texts.

	Michigan Curriculum Frameworks (As Assessed by the Michigan Educational Assessment Program –MEAP)				
Program Area Standards Identification Here	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands	
Standard 11. Students will demonstrate communication skills that contribute to positive relationships with children, parents, and coworkers.	Strand 1: Constructing New Scientific Knowledge 1.1 All students will ask questions that help them learn about the world; design and conduct investigations using appropriate methodology and technology, learn from books and other sources of information; communicate their findings using appropriate technology and reconstruct previously learned knowledge. Strand 3: Using scientific knowledge in Life Science. 3.2 All students will use classification systems to describe groups of living things; compare and contrast differences in the life cycles of living things; investigate and explain how living things obtain and use energy; and analyze how parts of living things are adapted to carry out specific functions.	1.2 Students describe the relationships among variables, predict what will happen to one variable as another variable is changed, analyze natural variation and sources of variability to compare patterns of change. 2.2 Students identify location of objects, identify location relative to other objects, and describe the effects of transformations (e.g. sliding, flipping, turning, enlarging, reducing) on an object.	 All students will demonstrate the ability to read and comprehend general and technical materials. All students will demonstrate the ability to write clear and grammatically correct sentences, paragraphs, and compositions. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts. All students will use the English language effectively. All students will learn to communicate information accurately and effectively and demonstrate their expressive abilities by creating oral, written, and visual texts and enlighten and engage and audience. All students will demonstrate, analyze, and reflect upon the skill and process used to communicate through listening, speaking, viewing, reading, and writing. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts 	1. Students use knowledge of the past to construct meaningful understanding of our diverse cultural heritage and to inform their civic judgments. 5. Students will use methods of social science to answer questions about society. 6. Student will analyze public issues and construct and express thoughtful positions of these issues. 7. Student will act constructively to further the public good.	

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	12. All students will develop and apply	
	personal, shared, and academic criteria for	
	the employment, appreciation, and	
	evaluation of their own and other' oral,	
	written, and visual texts.	

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	Michigan Curriculum Frameworks				
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Program Area Standards					
Identification Here	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands	
Standard 12. Students will have a basic understanding of, positively interact with, and provide accommodation for children who have special needs.	Strand 1: Constructing New Scientific Knowledge 1.1 All students will ask questions that help them learn about the world; design and conduct investigations using appropriate methodology and technology, learn from books and other sources of information; communicate their findings using appropriate technology and reconstruct previously learned knowledge.	5.1 Students understand and use various types of operations (e.g. addition, subtraction, multiplication, division) to solve problems. 6.1 Students develop an understanding of the notion of certainty and of probability as a measure of the degree of likelihood that can be assigned to a given event based on the knowledge available, and make critical judgments about claims that are made in probabilistic situations.	1. All students will demonstrate the ability to read and comprehend general and technical materials. 2. All students will demonstrate the ability to write clear and grammatically correct sentences, paragraphs, and compositions. 3. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts. 4. All students will use the English language effectively.	1. Students use knowledge of the past to construct meaningful understanding of our diverse cultural heritage and to inform their civic judgments. 2. Students will use knowledge of spatial patterns on earth to understand processes that shape human environments and to make decisions about society. 4. Students will use knowledge of the production, distribution and consumption of goods and services to make personal and societal decisions about the use of scarce resources.	
	Strand 3: Using scientific knowledge in Life Science. 3.2 All students will use classification systems to describe groups of living things; compare and contrast differences in the life cycles of living things; investigate and explain how living things obtain and use energy; and analyze how parts of living things are adapted to carry out specific functions.		6. All students will learn to communicate information accurately and effectively and demonstrate their expressive abilities by creating oral, written, and visual texts and enlighten and engage and audience. 7. All students will demonstrate, analyze, and reflect upon the skill and process used to communicate through listening, speaking, viewing, reading, and writing. 10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others.	 5. Students will use methods of social science to answer questions about society. 6. Student will analyze public issues and construct and express thoughtful positions of these issues. 7. Student will act constructively to further the public good. 	

11. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts
12. All students will develop and apply personal, shared, and academic criteria for the employment, appreciation, and evaluation of their own and other' oral, written, and visual texts.

	Michigan Curriculum Frameworks (An Appendix the Michigan Educational Appendix MEAD)			
Program Area Standards	(As Assessed by the Michigan Educational Assessment Program –MEAP)			
Identification Here	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
identification fiere	Science strands	Wathematics Content Standards	English Language Arts Standards	Social Studies Strands
Standard 13. Students will be able to	Strand 1: Constructing New	1.2 Students describe the	1. All students will demonstrate the ability	2. Students will use knowledge of spatial
identify symptoms of illness in	Scientific Knowledge	relationships among variables,	to read and comprehend general and	patterns on earth to understand
children, and use disease prevention	<u>sommo rano mouge</u>	predict what will happen to one	technical materials.	processes that shape human
strategies when working with	1.1 All students will ask questions	variable as another variable is		environments and to make decisions
children.	that help them learn about the	changed, analyze natural variation	2. All students will demonstrate the ability	about society.
	world; design and conduct	and sources of variability to compare	to write clear and grammatically correct	
	investigations using appropriate	patterns of change.	sentences, paragraphs, and compositions.	6. Student will analyze public issues and
	methodology and technology,		71 81 /	construct and express thoughtful
	learn from books and other	3.1 Students will collect and explore	3. All students will focus on meaning and	positions of these issues.
	sources of information;	data, organize data into a useful	communication as they listen, speak, view,	
	communicate their findings using	form, and develop skill in	read and write in personal, social,	7. Student will act constructively to
	appropriate technology and	representing and reading data	occupational and Civic contexts.	further the public good.
	reconstruct previously learned	displayed in different forms.		
	knowledge.		4. All students will use the English	
		3.2 Students will examine data and	language effectively.	
	Strand 2: Reflecting on Scientific	describe characteristics of a		
	Knowledge	distribution, relate data to the	6. All students will learn to communicate	
		situation from which they arose, and	information accurately and effectively and	
	2.1 All students will analyze	use data to answer questions	demonstrate their expressive abilities by	
	claims for their scientific merit	convincingly and persuasively.	creating oral, written, and visual texts and	
	and explain how scientists decide what constitutes scientific	5.1 Students understand and use	enlighten and engage an audience.	
	knowledge; how science is related	various types of operations (e.g.	7. All students will demonstrate, analyze,	
	to other ways of knowing; how	addition, subtraction, multiplication,	and reflect upon the skill and process used	
	science and technology affect our	division) to solve problems.	to communicate through listening, speaking,	
	society; and how people of	division) to solve problems.	viewing, reading, and writing.	
	diverse cultures have contributed	6.1 Students develop an	viewing, reading, and writing.	
	to and influenced developments	understanding of the notion of	10. All students will apply knowledge,	
	in science.	certainty and of probability as a	ideas, and issues drawn from text to their	
		measure of the degree of likelihood	lives and the lives of others.	
	Strand 3: Using scientific	that can be assigned to a given event		
	knowledge in Life Science.	based on the knowledge available,	11. All students will define and investigate	
		and make critical judgments about	important issues and problems using a	
	3.2 All students will use	claims that are made in probabilistic	variety of resources, including technology to	
	classification systems to describe	situations.	explore and create texts.	
	groups of living things; compare			

energy; and analyze how parts of living things are adapted to carry out specific functions. 3.3 All students will investigate the explain how characteristics of living things are passed on thorough generations; explain why organisms within a species are different from one another; and explain how new traits can be established by changing or manipulating genes. Strand 4: Using Scientific knowledge in Physical Science: 4.3 All students will describe how things around us move and explain why things move as they do; demonstrate and explain how we control the motions of objects; and relate motion to energy and energy conversions.

	Michigan Curriculum Frameworks (As Assessed by the Michigan Educational Assessment Program –MEAP)			
Program Area Standards Identification Here	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
Standard 14. Students will be able to use technology, as appropriate, to carry out work responsibilities.	Strand 1: Constructing New Scientific Knowledge 1.1 All students will ask questions that help them learn about the world; design and conduct investigations using appropriate methodology and technology, learn from books and other sources of information; communicate their findings using appropriate technology and reconstruct previously learned knowledge. Strand 2: Reflecting on Scientific Knowledge 2.1 All students will analyze claims for their scientific merit and explain how scientists decide what constitutes scientific knowledge; how science is related to other ways of knowing; how science and technology affect our society; and how people of diverse cultures have contributed to and influenced developments in science.	3.1 Students will collect and explore data, organize data into a useful form, and develop skill in representing and reading data displayed in different forms. 3.2 Students will examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively. 5.1 Students understand and use various types of operations (e.g. addition, subtraction, multiplication, division) to solve problems.	 All students will demonstrate the ability to read and comprehend general and technical materials. All students will demonstrate the ability to write clear and grammatically correct sentences, paragraphs, and compositions. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts. All students will use the English language effectively. All students will learn to communicate information accurately and effectively and demonstrate their expressive abilities by creating oral, written, and visual texts and enlighten and engage and audience. All students will demonstrate, analyze, and reflect upon the skill and process used to communicate through listening, speaking, viewing, reading, and writing. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts. 	1. Students use knowledge of the past to construct meaningful understanding of our diverse cultural heritage and to inform their civic judgments. 2. Students will use knowledge of spatial patterns on earth to understand processes that shape human environments and to make decisions about society. 6. Student will analyze public issues and construct and express thoughtful positions of these issues. 7. Student will act constructively to further the public good.

	Michigan Curriculum Frameworks (As Assessed by the Michigan Educational Assessment Propagation MEAR)			
D A C4 JJ.	(As Assessed by the Michigan Educational Assessment Program –MEAP)			
Program Area Standards Identification Here	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
identification fiere	Science strands	Wathematics Content Standards	English Language Arts Standards	Social Studies Strands
	Strand 1: Constructing New	1.1 Students recognize similarities and	1. All students will demonstrate the ability to	Students use knowledge of the past to
	Scientific Knowledge	generalize patterns, use patterns to	read and comprehend general and technical	construct meaningful understanding of our
		create models and make predictions,	materials.	diverse cultural heritage and to inform their
	1.1 All students will ask questions	describe the nature of patterns and		civic judgments.
	that help them learn about the	relationships and construct	2. All students will demonstrate the ability to	
	world; design and conduct	representations of mathematical	write clear and grammatically correct	2. Students will use knowledge of spatial
	investigations using appropriate	relationships.	sentences, paragraphs, and compositions.	patterns on earth to understand processes
	methodology and technology, learn			that shape human environments and to
	from books and other sources of	1.2 Students describe the relationships		make decisions about society.
	information; communicate their	among variables, predict what will	3. All students will focus on meaning and	2 St. danta will was law and day of
	findings using appropriate technology and reconstruct	happen to one variable as another variable is changed, analyze natural	communication as they listen, speak, view, read and write in personal, social, occupational	3. Students will use knowledge of American government and politics to make
	previously learned knowledge.	variation and sources of variability to	and Civic contexts.	informed decisions about government and
	previously learned knowledge.	compare patterns of change.	and civic contexts.	their communities.
	Strand 2: Reflecting on Scientific	compare patterns of change.	4. All students will use the English language	then communities.
	Knowledge	2.1 Students develop spatial sense, use	effectively.	4. Students will use knowledge of the
		shape as an analytical and descriptive		production, distribution and consumption of
	2.1 All students will analyze claims	tool, identify characters and define	5. All students will read and analyze a wide	goods and services to make personal and
	for their scientific merit and	shapes, identify properties and describe	variety of classic and contemporary literature	societal decisions about the use of scarce
	explain how scientists decide what	relationships among shapes.	and other texts to seek information, ideas,	resources.
	constitutes scientific knowledge;		enjoyment, and understanding of their	
	how science is related to other	2.2 Students identify location of	individuality, our common heritage and	5. Students will use methods of social
	ways of knowing; how science and	objects, identify location relative to	common humanity, and the rich diversity of	science to answer questions about society.
	technology affect our society; and how people of diverse cultures	other objects, and describe the effects of transformations (e.g. sliding,	our society.	6. Student will analyze public issues and
	have contributed to and influenced	flipping, turning, enlarging, reducing)		construct and express thoughtful positions
	developments in science.	on an object.	6. All students will learn to communicate	of these issues.
	developments in science.	on an object.	information accurately and effectively and	of these issues.
	Strand 3: Using scientific	2.3 Students compare attributes of two	demonstrate their expressive abilities by	7. Student will act constructively to further
	knowledge in Life Science.	objects or of one object with a standard	creating oral, written, and visual texts and	the public good.
		(unit) and analyze situations to	enlighten and engage and audience.	
	3.1 All students will apply an	determine what measurement(s) should		
	understanding of cells to the	be made and to what level of precision.	7. All students will demonstrate, analyze, and	
	functioning of multi-cellular		reflect upon the skill and process used to	
	organism; and explain how cells,	3.1 Students will collect and explore	communicate through listening, speaking,	
	grow, develop, and reproduce.	data, organize data into a useful form,	viewing, reading, and writing.	

- 3.2 All students will use classification systems to describe groups of living things; compare and contrast differences in the life cycles of living things; investigate and explain how living things obtain and use energy; and analyze how parts of living things are adapted to carry out specific functions.
- 3.3 All students will investigate the explain how characteristics of living things are passed on thorough generations; explain why organisms within a species are different from one another; and explain how new traits can be established by changing or manipulating genes.
- 3.4 All students will explain how scientists construct and scientifically test theories concerning the origin of life and evolution of species; compare ways that living organisms are adapted (suited) to survive and reproduce in their environments and analyze how species change through time.
- 3.5 All students will explain how parts of an ecosystem are related and how they interact; explain how energy is distributed to living things in an ecosystem; investigate and explain how communities of living things change over a period of time; describe how materials cycle through an ecosystem and get reused in the environment and analyze how human and environments interact.

- and develop skill in representing and reading data displayed in different forms.
- 3.2 Students will examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively.
- 3.3 Students draw defensible inferences about unknown outcomes, make predictions, and identify the degree of confidence they have in their predictions.
- 4.1 Students experience counting and measuring activities to develop intuitive sense about numbers, develop understanding about properties of numbers, understand the need for and existence of different sets of numbers, and investigate properties of special numbers.
- 4.2 Student recognize that numbers are used in different ways such as counting, measuring, ordering, and estimating, understand and produce multiple representations of a number, and translate among equivalent representations.
- 4.3 Students investigate relationships such as equality, inequality, inverses, factors and multiples, and represent and compare very large and very small numbers.
- 5.1 Students understand and use various types of operations (e.g. addition, subtraction, multiplication, division) to solve problems.
- 5.2 Students analyze problems to

- 8. All students will explore and use the characteristics of different types of texts, aesthetic elements, and mechanics—including text structure, figurative and descriptive language, spelling, punctuation, and grammar—to construct and convey meaning.
- 9. All students will demonstrate understanding of the complexity of enduring issues recurring problems by making connections and general themes within and across texts.
- 10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others.
- 11. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts
- 12. All students will develop and apply personal, shared, and academic criteria for the employment, appreciation, and evaluation of their own and other' oral, written, and visual texts.

Strand 4: <u>Using Scientific</u> knowledge in Physical Science: 4.1 All students will measure and describe the things around us;	determine an appropriate process for solution, and use algebraic notations to model or represent problems. 6.1 Students develop an understanding	
explain what the world around us is made of; identify and describe forms of energy; and explain how	of the notion of certainty and of probability as a measure of the degree of likelihood that can be assigned to a	
electricity and magnetism interact with matter	given event based on the knowledge available, and make critical judgments about claims that are made in	
4.2 All students will investigate, describe and analyze ways in which matter changes; describe how	probabilistic situations. 6.2 Students investigate practical	
living things and human technology change matter and transform energy; explain how visible changes in matter are related to	situations such as scheduling, routing, sequencing, networking, organizing and classifying, and analyze ideas like recurrence relations, induction.	
atoms and molecules; and how changes in matter are related to changes in energy.	iteration, and algorithm design.	
4.3 All students will describe how things around us move and explain why things move as they do; demonstrate and explain how we control the motions of objects; and relate motion to energy and energy conversions.		
4.4 All students will describe sounds and sound waves; explain shadows, color, and other light phenomena; measure and describe vibrations and waves; and explain how waves and vibrations transfer energy.		
Strand 5: <u>Using Scientific</u> knowledge in Earth Science.		
5.1 All students will describe the earth's surface; describe and explain how the earth's features change over time; and analyze effects of technology on the earth's		

surface and resources.		
5.2 All students will demonstrate where water is found on earth; describe the characteristics of water and how water moves; and analyze the interaction of human activities with the hydrosphere.		
5.3 All students will investigate and describe what makes up weather and how it changes form day to day, from season to season and over long periods of time; explain what causes different kinds of weather; and analyze the relationships between human activities and the atmosphere.		
5.4 All students will compare and contrast our planet and sun to other planets and star systems; describe and explain how objects in the solar system move; explain scientific theories as to the origin of the solar system; and explain how we learn about the universe.		